



To Whom it May Concern,

It's hard to believe that the 2020-2021 school year is officially over. To ensure that your child does not lose the skills they have learned this year over the summer, I have put together a series of worksheets that covers topics they were taught throughout the school year. These topics come from chapters 1-3 and 7. I have also included some notes from the textbook and worksheets for the other chapters we were unable to get to. Chapters 4-6 and 8-10 were not covered, although we did get to do a couple of lessons in chapter 6 before the end of the school year. I want to stress that this packet is completely optional. I had received some interest from a handful of students who asked for something to work on over the summer, and I wanted to make it available to everyone.

I hope you all have a wonderful summer!

Sincerely,

Amanda P Olsen

Ms. Olsen



A quien le interese,

Es difícil creer que el año escolar 2020-2021 haya terminado oficialmente. Para asegurar que su hijo no pierda las habilidades que ha aprendido este año durante el verano, he elaborado una serie de hojas de trabajo que cubren los temas que se les enseñaron durante el año escolar. Estos temas provienen de los capítulos 1-3 y 7. También he incluido algunas notas del libro de texto y hojas de trabajo para los otros capítulos a los que no pudimos acceder. Los capítulos 4-6 y 8-10 no fueron cubiertos, aunque pudimos hacer un par de lecciones en el capítulo 6 antes del final del año escolar. Quiero enfatizar que este paquete es completamente opcional. Había recibido cierto interés de un puñado de estudiantes que pedían algo.

¡Espero que todos tengan un verano maravilloso!

Sinceramente,

Amanda P Olsen

Ms. Olsen



A quem possa interessar,

É difícil acreditar que o ano letivo de 2020-2021 acabou oficialmente. Para garantir que seu filho não perca as habilidades que aprendeu este ano durante o verão, reúne uma série de planilhas que abordam os tópicos que foram ensinados ao longo do ano letivo. Esses tópicos vêm dos capítulos 1-3 e 7. Também inclui algumas notas do livro-texto e planilhas para os outros capítulos que não conseguimos acessar. Os capítulos 4-6 e 8-10 não foram abordados, embora tenhamos feito algumas lições no capítulo 6 antes do final do ano letivo. Quero enfatizar que este pacote é totalmente opcional. Recebi algum interesse de um punhado de alunos que pediram algo

Espero que todos tenham um verão maravilhoso!

Atenciosamente,

Amanda P Olsen

Ms. Olsen

# Ms. Olsen's 2020-2021 Summer Math Packet *(part 1)*

*The following consist of practice worksheets for the chapters we completed in class throughout the 2020-2021 school year.*

The topics are as follows:

## Chapter 1

- Lesson 1.1: Whole Number Operations
- Lesson 1.2: Powers and Exponents
- Lesson 1.3: Order of Operations (PEMDAS)
- Lesson 1.4: Prime Factorization
- Lesson 1.5: Greatest Common Factor (GCF)
- Lesson 1.6: Least COmmon Multiple (LCM)

## Chapter 2

- Lesson 2.1: Multiplying Fractions
- Lesson 2.2: Dividing Fractions
- Lesson 2.3: Dividing Mixed Numbers
- Lesson 2.4: Adding and Subtracting Decimals
- Lesson 2.5: Multiplying Decimals
- Lesson 2.6: Dividing Decimals

## Chapter 3

- Lesson 3.1: Algebraic Expressions
- Lesson 3.2: Writing Expressions
- Lesson 3.3: Properties of Addition and Multiplication
- Lesson 3.4: The Distributive Property

## Chapter 7

- Lesson 7.1: Writing Equations in One Variable
- Lesson 7.2: Solving Equations Using Addition or Subtraction
- Lesson 7.3: Solving Equations Using Multiplication or Division
- Lesson 7.4: Writing Equations in Two Variables
- Lesson 7.5: Writing and Graphing Inequalities
- Lesson 7.6: Solving Inequalities Using Addition or Subtraction
- Lesson 7.7: Solving Inequalities Using Multiplication or Division



# Puzzle Time

## Did You Hear About The...

A	B	C	D	E	F
G	H	I	J	K	L
M	N	O	P	Q	

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

320 FOR
4436 TEST
181,632 BECAUSE
40 TO
4091 SPIDER
15,275 CAR
52 FAST
4460 TO
$44\frac{17}{164}$ IT
6 WANTED
18,622 WEB

Find the value of the expression.

- A.  $3328 + 763$       B.  $6462 + 2841$   
C.  $2857 + 2788$       D.  $8583 - 4123$   
E.  $6054 - 1618$       F.  $3527 - 2072$   
G.  $73 \times 26$       H.  $235 \times 65$   
I.  $528 \times 344$       J.  $24\overline{)864}$   
K.  $432 \div 72$       L.  $8960 \div 224$   
M.  $\frac{5409}{50}$       N.  $\frac{7233}{164}$   
O. Piano lessons cost \$20 per week. How much will it cost, in dollars, for 16 weeks of piano lessons?  
P. The scores of the first two football games were 28 and 35. What was the total number of points scored in the first two football games?  
Q. The school store has 14 boxes of notebooks with the school mascot on them. If there are 980 notebooks, how many notebooks are in each box?

5645 ASKED
$108\frac{9}{50}$ TAKE
63 A
1455 DRIVE
60 SIGN
1898 A
70 SPIN
36 HE
7 BUMPER
9303 THAT
11 LIMIT

# 1.2 Puzzle Time

## Did You Hear About...

A	B	C	D	E	F
G	H	I	J	K	L
M	N	O	P	Q	

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

15 HITS
5 <sup>3</sup> CREATED
46 CATCHER
27 HE
No LOT
7 <sup>3</sup> SITE
64 WANTED
11 <sup>5</sup> WEB
36 GET
3 <sup>5</sup> PLAYER
71 SURF

Write the product as a power.

- A.  $8 \times 8$                       B.  $12 \times 12$   
C.  $3 \times 3 \times 3 \times 3 \times 3$         D.  $9 \cdot 9 \cdot 9 \cdot 9$   
E.  $5 \cdot 5 \cdot 5$                       F.  $4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4$   
G.  $11 \cdot 11 \cdot 11 \cdot 11 \cdot 11$         H.  $7 \times 7 \times 7$

Find the value of the power.

- I.  $2^4$                                 J.  $3^3$   
K.  $4^3$                                 L.  $10^4$   
M.  $6^2$                                 N.  $5^2$

Determine whether the number is a perfect square.

- O. 12                                P. 144

- Q. You are arranging chairs in the auditorium for the talent show. The number of rows is to be the same as the number of chairs per row. You will need a total of 225 chairs. How many chairs will be in each row?

25 A
12 <sup>2</sup> BASEBALL
10,000 TO
8 <sup>2</sup> THE
56 INNING
9 <sup>4</sup> WHO
72 HOMERUN
4 <sup>6</sup> A
Yes OF
16 BECAUSE
17 STRIKE



# 1.3 Puzzle Time

## Which King Was Purple and Had Many Wives?

Write the letter of each answer in the box containing the exercise number.

Evaluate the expression.

1.  $15 + 8 \div 2$
2.  $3 \times 7 - 2 \times 3$
3.  $(6 + 10) \div 2$
4.  $4 \times (12 - 4)$
5.  $3^2 + 4^2 + 2^2$
6.  $(15 - 10)^2 + (15 - 5)^2$
7.  $33 \div 11 \times 12 \div 2$
8.  $9(3 + 2) - 3(8 - 7)$
9.  $7 \times (6 - 3)^2$
10.  $20 - 4^2 + 3^3$
11.  $\left(\frac{1}{3} + 2\frac{2}{3}\right) \times 13$
12.  $60 \div \left(6\frac{1}{7} - \frac{1}{7}\right) \times 4$
13.  $(0.6 + 7.4)^2 - 14$
14.  $4 \times (10.1 + 1.9) \div 2$
15.  $\frac{2^4 \times 5 + 8}{4}$
16.  $\frac{5(12 - 5) + 13}{6 + 2}$
17. You plan to practice playing guitar for 15 minutes on three weekdays and 20 minutes each on Saturday and Sunday. Evaluate the expression  $15 \times 3 + 20 \times 2$  to find the number of minutes you will practice during the entire week.

### Answers

- E. 18
- N. 22
- N. 29
- R. 50
- P. 6
- H. 15
- G. 85
- T. 31
- R. 24
- E. 19
- G. 42
- A. 8
- E. 125
- I. 39
- K. 32
- Y. 63
- H. 40

4	11	15	8		12	1	5	13	9		10	2	6		17	14	3	16	7
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# 1.4 Puzzle Time

## Did You Hear About...

A	B	C	D	E	F
G	H	I	J	K	L
M	N	O	P	Q	R
S					

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

1, 63; 3, 21; 7, 9 A
90 TO
$3^2 \cdot 5$ BAG
$3 \cdot 5^2$ SPEND
$3^4$ TO
1, 18; 2, 9; 3, 6 THE
300 WAKE
$3 \cdot 11$ HAD
252 WEEKS
1, 55; 5, 11 BOUGHT
1, 16; 2, 8; 4, 4 UP

List the factor pairs of the number.

- A. 18                      B. 36  
C. 41                      D. 55  
E. 63                      F. 87

Write the prime factorization of the number.

- G. 12                      H. 45  
I. 60                      J. 33  
K. 81                      L. 75

Find the number represented by the prime factorization.

- M.  $2 \cdot 5 \cdot 17$                       N.  $2^2 \cdot 3^2 \cdot 7$   
O.  $2^2 \cdot 5 \cdot 11$                       P.  $2 \cdot 3^2 \cdot 5$   
Q.  $2^2 \cdot 3 \cdot 5^2$                       R.  $2 \cdot 3 \cdot 5^2$

- S. The football cheerleaders consist of 16 members. The cheerleading coach places the cheerleaders in rows. Each row has the same number of members. Find the possible row arrangements.

1, 36; 2, 18; 3, 12; 4, 9; 6, 6 CAMPER
400 SUNRISE
1, 87; 3, 29 NEW
$2^2 \cdot 3 \cdot 5$ AND
170 TWO
$5^2$ NIGHT
1, 41 WHO
150 IT
220 TRYING
$2^2 \cdot 3$ SLEEPING





## Puzzle Time

### Why Did The Horse Put On A Blanket?

Circle the letter of each correct answer in the boxes below. The circled letters will spell out the answer to the riddle.

Find the GCF of the numbers.

- |                |                |                 |
|----------------|----------------|-----------------|
| 1. 12, 28      | 2. 15, 60      | 3. 9, 24        |
| 4. 16, 72      | 5. 35, 56      | 6. 33, 46       |
| 7. 26, 52      | 8. 45, 54      | 9. 42, 54       |
| 10. 34, 85     | 11. 48, 64     | 12. 77, 121     |
| 13. 20, 30, 90 | 14. 42, 63, 84 | 15. 36, 54, 108 |

Solve.

16. Your local minor league baseball team has 120 ball caps, 180 miniature baseball keychains, and 240 glow in the dark bracelets to give away to children on opening day. The items will be split into identical sets with no items left over. Each child will receive one set of items. What is the greatest number of children that will receive a set of items on opening day?

A	H	E	B	E	G	H	W	I	L	A	T	S	B	A	L	L	B	I
99	11	2	31	9	50	5	26	43	29	4	40	17	32	8	25	16	76	10
A	T	X	E	T	K	R	L	T	E	A	R	C	R	O	W	L	A	T
22	7	55	24	15	34	30	18	28	3	19	100	21	35	6	27	1	81	60



## Puzzle Time

### What Does A Computer Do When It Gets Hungry?

Write the letter of each answer in the box containing the exercise number.

Find the LCM of the numbers.

1. 5, 9
2. 2, 11
3. 12, 16
4. 3, 8
5. 7, 9
6. 10, 14
7. 13, 39
8. 30, 45
9. 14, 21
10. 6, 10
11. 15, 20
12. 18, 24
13. 2, 3, 11
14. 2, 4, 6
15. 8, 10, 16
16. One local radio station plays a commercial every 6 minutes. Another local radio station plays a commercial every 9 minutes. Both radio stations just played commercials. How many minutes will pass before both local radio stations play commercials again at the same time?

#### Answers

- T. 60  
E. 22  
E. 42  
B. 63  
E. 72  
T. 80  
S. 70  
Y. 12  
T. 45  
G. 30  
O. 39  
T. 18  
I. 24  
A. 90  
T. 66  
A. 48

4	13		10	2	15	6		8		5	14	1	12		16	7		9	3	11
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## Puzzle Time

### Why Did The Turkey Volunteer To Be The Drummer In The Popular Bird Band?

Write the letter of each answer in the box containing the exercise number.

**Multiply. Write the answer in simplest form.**

1.  $\frac{1}{8} \times \frac{3}{5}$
2.  $\frac{1}{6} \times \frac{3}{8}$
3.  $\frac{3}{4} \times \frac{9}{13}$
4.  $\frac{5}{6} \times \frac{6}{7}$
5.  $\frac{5}{16} \times \frac{1}{10}$
6.  $\frac{3}{14} \times 12$
7.  $8 \times \frac{9}{10}$
8.  $\frac{5}{7} \times \frac{5}{8}$
9.  $\frac{14}{15} \times \frac{5}{7}$
10.  $1\frac{1}{4} \times \frac{3}{4}$
11.  $7\frac{1}{2} \times \frac{4}{5}$
12.  $\frac{5}{8} \times 1\frac{3}{5}$
13.  $6\frac{1}{4} \times \frac{2}{5}$
14.  $2\frac{7}{10} \times \frac{5}{9}$
15.  $\frac{2}{9} \times 3\frac{1}{6}$
16.  $1\frac{5}{7} \times 21$
17.  $4\frac{3}{8} \times 2\frac{2}{7}$
18.  $\frac{1}{8} \times \frac{3}{5} \times \frac{2}{3}$
19.  $\frac{6}{7} \bullet \frac{6}{7}$
20.  $\left(\frac{2}{5}\right)^2$
21.  $\left(\frac{3}{4}\right)^2 \bullet \frac{1}{3}$

22. The photo of you and your friends at the local amusement park has a length of  $5\frac{1}{3}$  inches and a width of  $3\frac{1}{4}$  inches. Find the area in square inches of the photo of you and your friends.

#### Answers for 1-22.

- |                    |                    |
|--------------------|--------------------|
| S. $7\frac{1}{5}$  | C. $\frac{27}{52}$ |
| A. $\frac{3}{40}$  | E. $\frac{19}{27}$ |
| Y. $\frac{2}{3}$   | D. $2\frac{1}{2}$  |
| H. $\frac{1}{16}$  | U. 36              |
| L. $\frac{1}{20}$  | D. $1\frac{1}{2}$  |
| A. $\frac{4}{25}$  | D. $\frac{1}{32}$  |
| E. $\frac{3}{16}$  | R. $\frac{15}{16}$ |
| R. 1               | T. 6               |
| K. $\frac{36}{49}$ | I. 10              |
| A. $2\frac{4}{7}$  | M. $\frac{5}{7}$   |
| H. $\frac{25}{56}$ | S. $17\frac{1}{3}$ |

2	15	6	18	10	21	1	13	9	8	20	5	14	12	16	4	22	11	17	3	19	7
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## Puzzle Time

### Why Was The Gentleman Who Was Selling Watches Unhappy?

Write the letter of each answer in the box containing the exercise number.

Write the reciprocal of the number.

1. 5                      2. 12                      3.  $\frac{2}{3}$
4.  $\frac{4}{9}$                       5.  $\frac{7}{6}$                       6.  $\frac{1}{8}$

Divide. Write the answer in simplest form.

7.  $\frac{1}{16} \div \frac{1}{8}$                       8.  $\frac{6}{7} \div \frac{3}{5}$                       9.  $14 \div \frac{2}{7}$
10.  $\frac{5}{8} \div 10$                       11.  $\frac{14}{15} \div 7$                       12.  $\frac{5}{24} \div \frac{5}{6}$
13.  $\frac{9}{20} \div \frac{3}{4}$                       14.  $\frac{1}{4} \div \frac{1}{36}$                       15.  $\frac{7}{8} \div 28$
16.  $3 \div \frac{2}{3}$                       17.  $\frac{3}{14} \div \frac{9}{11}$                       18.  $18 \div \frac{9}{13}$
19.  $\frac{1}{9} \div 9 \div 9$                       20.  $3 \div \frac{9}{11} + \frac{1}{3}$                       21.  $\frac{1}{2} + \frac{7}{8} \div \frac{11}{24}$
22.  $\frac{5}{12} \times \frac{2}{3} \div \frac{2}{9}$                       23.  $\frac{8}{21} \div \frac{2}{3} \times \frac{4}{9}$                       24.  $\frac{9}{16} \div 18 \div 8$

25. There are 3 pieces of pizza left. How many  $\frac{1}{4}$  pieces of pizza can be sliced from the 3 pieces of pizza?

Answers for 1–6.

- A.  $\frac{6}{7}$                       M.  $\frac{9}{4}$                       H.  $\frac{1}{5}$
- O. 8                      N.  $\frac{3}{2}$                       S.  $\frac{1}{12}$

Answers for 7–25.

- A.  $\frac{11}{42}$                       N.  $4\frac{1}{2}$                       I. 49
- O.  $\frac{2}{15}$                       H.  $\frac{1}{2}$                       L. 26
- S. 9                      I.  $\frac{3}{5}$                       D.  $\frac{1}{16}$
- F.  $1\frac{3}{7}$                       T.  $\frac{1}{32}$                       H.  $\frac{1}{4}$
- O. 12                      H.  $2\frac{9}{22}$                       E.  $\frac{1}{256}$
- A.  $1\frac{1}{4}$                       E.  $\frac{1}{729}$                       T. 4
- D.  $\frac{16}{63}$

12	24		1	22	10		17		18	25	15		11	8		20	9	4	19	
6	16		21	13	2		7	5	3	23	14									

## 2.3 Puzzle Time

### What Does An Ant Use To Keep All Of Its Hair In Place?

Write the letter of each answer in the box containing the exercise number.

Divide. Write the answer in simplest form.

1.  $1\frac{3}{5} \div \frac{4}{5}$
2.  $5\frac{1}{4} \div \frac{3}{4}$
3.  $12\frac{2}{5} \div \frac{1}{5}$
4.  $2\frac{2}{3} \div 2\frac{2}{3}$
5.  $7\frac{1}{7} \div \frac{10}{11}$
6.  $3\frac{1}{6} \div \frac{5}{6}$
7.  $\frac{7}{9} \div 2\frac{13}{18}$
8.  $12\frac{1}{2} \div 15$
9.  $14 \div 9\frac{1}{3}$
10.  $5\frac{1}{8} \div 6\frac{5}{6}$
11.  $3\frac{5}{8} \div 5\frac{4}{5}$
12.  $16 \div 4\frac{2}{3}$
13.  $4\frac{1}{4} \div \frac{1}{8}$
14.  $17 \div 2\frac{4}{15} + 2\frac{5}{12}$
15.  $1\frac{3}{7} \div \frac{5}{6} \div 4\frac{4}{5}$
16.  $2\frac{5}{8} \div 1\frac{5}{9} \times 1\frac{1}{9}$
17.  $2\frac{3}{11} + \frac{4}{9} \div 1\frac{7}{15}$

#### Answers

- |                     |                     |
|---------------------|---------------------|
| E. $1\frac{7}{8}$   | A. $3\frac{3}{7}$   |
| G. 1                | D. $1\frac{1}{2}$   |
| H. 2                | P. $\frac{2}{7}$    |
| R. 34               | X. $\frac{5}{8}$    |
| U. $7\frac{6}{7}$   | Y. 7                |
| A. $9\frac{11}{12}$ | O. $2\frac{19}{33}$ |
| T. $\frac{5}{6}$    | B. $\frac{3}{4}$    |
| L. 62               | S. $3\frac{4}{5}$   |
| R. $\frac{5}{14}$   |                     |

16	11	8	13	14		1	17	3	9		10	5	4		6	7	15	12	2
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## Puzzle Time

### Did You Hear About...

A	B	C	D	E	F
G	H	I	J	K	L
M	N	O	P	Q	

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

44.5 BEAK
11.524 ELECTRIC
3.31 A
4.883 HE
17.2 BULB
5.65 HAVE
6.485 BIRD
8.012 SWITCH
7.652 WATER
2.633 SO
11.11 POND
40.059 HIS

#### Add.

- A.  $8.93 + 2.108$       B.  $2.6 + 3.885$   
C.  $23.938 + 9.06$       D.  $19.46 + 12.657$   
E.  $28.551 + 11.508$       F.  $26.367 + 18.133$

#### Subtract.

- G.  $5.69 - 4.23$       H.  $7.518 - 4.208$   
I.  $5.87 - 3.725$       J.  $16.242 - 12.68$   
K.  $24.6 - 21.967$       L.  $26.73 - 21.847$

#### Evaluate the expression.

- M.  $7.206 + 9.3 + 4.186$   
N.  $23.7 - 13.397 - 4.653$   
O.  $26.46 + 8.715 - 14.065$   
P.  $17.6 - 14.56 + 8.484$   
Q. The rectangular sandbox at the local community park has a width of 24.5 meters and its length is 31.7 meters. What is the perimeter, in meters, of the rectangular sandbox?

32.998 WHO
20.692 COULD
41.691 BRIGHT
11.038 THE
112.4 BILL
2.145 LIGHT
21.11 AN
32.117 STUCK
3.562 SOCKET
1.46 INTO
43.21 DUCK
28.51 KILOWATT



## Puzzle Time

### How Did The Goblin Football Player Score The Winning Touchdown?

Write the letter of each answer in the box containing the exercise number.

#### Multiply.

1.  $3.8 \times 8$

2.  $5.1 \times 8$

3.  $5.08 \times 7$

4.  $2.24 \times 3$

5.  $2.563 \times 3$

6.  $0.024 \times 8$

7.  $0.072 \times 3$

8.  $0.0029 \times 6$

9. 
$$\begin{array}{r} 0.8 \\ \times 0.3 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 0.07 \\ \times 0.2 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 0.006 \\ \times 0.04 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 0.0009 \\ \times 0.08 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 0.003 \\ \times 0.9 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 0.0007 \\ \times 0.005 \\ \hline \end{array}$$

15.  $2.25 \times 4.46$

16.  $2.042 \times 6.408$

#### Evaluate the expression.

17.  $3.1 \times 5 + 9$

18.  $8.2(2.3 + 1.7)$

19.  $2^2 \times 3.3 + 7.645$

20.  $9.645 \times 3 \times 10$

21. A football weighs approximately 0.42 kilogram. The physical education teacher needs to purchase a dozen footballs. What will be the total weight, in kilograms, of the footballs to calculate shipping and handling?

#### Answers

O. 30.4

R. 0.24

N. 0.014

E. 0.00024

H. 0.000072

I. 0.0027

L. 289.35

H. 0.192

V. 0.0174

U. 5.04

O. 0.0000035

T. 32.8

E. 24.5

A. 20.845

G. 40.8

E. 0.216

H. 10.035

N. 35.56

R. 6.72

E. 7.689

L. 13.085136

6	17		9	19	3		1	8	11	4		18	12	5		2	15	14	21	16		20	13	10	7
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## 2.6 Puzzle Time

### Why Did The Young Lady Go Buzz Buzz In The Hallway?

Write the letter of each answer in the box containing the exercise number.

Divide.

1.  $5 \overline{)39.5}$
2.  $8 \overline{)33.6}$
3.  $17 \overline{)19.618}$
4.  $12 \overline{)52.8}$
5.  $45.87 \div 6$
6.  $51.288 \div 4$
7.  $15.75 \div 18$
8.  $3.2 \div 0.4$
9.  $0.07 \overline{)0.84}$
10.  $3.2 \overline{)41.6}$
11.  $4.9 \overline{)68.6}$
12.  $0.5 \overline{)17.7}$
13.  $50.56 \div 0.8$
14.  $22.4 \div 0.04$
15.  $33.6 \div 0.3$
16.  $0.861 \div 0.7$
17. The perimeter of each face of a Rubik's cube is 22.2 centimeters. What is the length of an edge of a Rubik's cube?

#### Answers

- |          |           |
|----------|-----------|
| T. 7.645 | A. 12     |
| S. 13    | S. 7.9    |
| E. 4.2   | H. 12.822 |
| E. 560   | A. 1.23   |
| T. 5.55  | E. 14     |
| S. 63.2  | U. 1.154  |
| E. 0.875 | D. 112    |
| N. 35.4  | B. 8      |
| W. 4.4   |           |

13	6	11		4	16	1		9		8	2	14		10	17	3	15	7	12	5
----	---	----	--	---	----	---	--	---	--	---	---	----	--	----	----	---	----	---	----	---



# 3.1 Puzzle Time

## Why Were King Edward's Soldiers Too Tired To Fight?

Write the letter of each answer in the box containing the exercise number.

Write each expression using exponents.

1.  $a \cdot a \cdot a \cdot a$
2.  $6 \cdot y \cdot y$
3.  $\frac{1}{4} \cdot c \cdot c \cdot d \cdot d$
4.  $9.8 \cdot m \cdot m \cdot m \cdot n \cdot n$

Evaluate the expression when  $a = 4$ ,  $b = 3$ , and  $c = 10$ .

5.  $5 + a$
6.  $c - 2.5$
7.  $2.8 \div a$
8.  $13\frac{3}{5} - b$
9.  $\frac{5a}{8}$
10.  $\frac{c}{5} - \frac{a}{2}$
11.  $a \cdot b \cdot c$
12.  $c^2 - ab$

Evaluate the expression when  $a = 12$ ,  $b = 5$ , and  $c = 2$ .

13.  $3a + 4$
14.  $5c - 6.7$
15.  $\frac{a}{5} + 4$
16.  $\frac{26}{b} + 8.8$
17.  $c^2 + \frac{2}{3}$
18.  $\frac{a^2}{12} - 2.4$
19.  $\frac{a}{6} + 7c$
20.  $bc + 11.2$
21.  $\frac{6a}{c} - 2$
22.  $\frac{ab}{6} - 3c$

23. The expression  $12a + 7s$  is the cost, in dollars, for  $a$  adults and  $s$  students to enter the local marching band competition. Find the total cost for 4 adults and 30 students.

11	2	21	8		10	5	17		22	12	18	1	14	7	20	16	3		6	23	13	4	19	15	9
----	---	----	---	--	----	---	----	--	----	----	----	---	----	---	----	----	---	--	---	----	----	---	----	----	---

### Answers

- |                        |                   |
|------------------------|-------------------|
| Y. $10\frac{3}{5}$     | G. $9.8m^3n^2$    |
| S. 14                  | S. $2\frac{1}{2}$ |
| E. $a^4$               | T. $6\frac{2}{5}$ |
| H. 0                   | D. $4\frac{2}{3}$ |
| N. 258                 | H. $6y^2$         |
| L. 88                  | T. 120            |
| S. 4                   | E. 34             |
| S. $\frac{1}{4}c^2d^2$ | I. 40             |
| E. 21.2                | A. 9              |
| P. 3.3                 | E. 9.6            |
| K. 7.5                 | L. 0.7            |
| H. 16                  |                   |



## Puzzle Time

### What's A Mouse's Favorite Television Show?

Write the letter of each answer in the box containing the exercise number.

Write the phrase as an expression.

1. 4.2 less than 7.6
2.  $27\frac{1}{5}$  divided by 9
3. the total of  $7\frac{1}{6}$  and  $13\frac{1}{8}$
4. 3 times a number  $x$
5.  $10\frac{1}{3}$  subtracted from a number  $x$
6. the quotient of 17 and a number  $x$
7. the difference of a number  $x$  and 6.4
8. a number  $x$  squared
9. 15.6 times a number  $x$

Write the phrase as an expression. Then, evaluate the expression when  $x = 4$  and  $y = 24$ .

10. the sum of a number  $x$  and  $19\frac{3}{5}$
11. a number  $x$  multiplied by 14.2
12. 5 less than a quotient of a number  $y$  and 2
13. the sum of a number  $x$  and 8, all divided by 3
14. 8.6 more than the product of 3 and a number  $y$
15. Your friend has read 6 more than twice as many pages as your sister has read. Let  $x$  be the number of pages your sister has read. Write an expression for the number of pages your friend has read.

#### Answers

- |                                   |                        |
|-----------------------------------|------------------------|
| R. $7\frac{1}{6} + 13\frac{1}{8}$ | E. $15.6x$             |
| N. $3x$                           | U. $x^2$               |
| F. $7.6 - 4.2$                    | S. $x - 6.4$           |
| E. $17 \div x$                    | A. $x - 10\frac{1}{3}$ |
| U. $27\frac{1}{5} \div 9$         | O. $23\frac{3}{5}$     |
| T. 4                              | F. 80.6                |
| Q. $2x + 6$                       | O. 56.8                |
| L. 7                              |                        |

7	15	2	9	5	12		10	1		14	11	3	13	8	4	6
---	----	---	---	---	----	--	----	---	--	----	----	---	----	---	---	---



### Puzzle Time

## Why Was A Book In The Frying Pan On The Stove?

Write the letter of each answer in the box containing the exercise number.

Tell which property is illustrated by the statement.

1.  $\frac{1}{4} \cdot x = x \cdot \frac{1}{4}$

2.  $3 + (11 + p) = (3 + 11) + p$

3.  $6 \cdot (r \cdot 9) = (6 \cdot r) \cdot 9$

4.  $c + 13.4 = 13.4 + c$

5.  $\left(y + 7\frac{1}{8}\right) + 0 = y + 7\frac{1}{8}$

6.  $b \cdot 1 = b$

Simplify the expression.

7.  $5 + (4 + x)$

8.  $7(3x)$

9.  $(0 + x) + 6\frac{1}{2}$

10.  $11.2 \cdot x \cdot 3$

11.  $\left(6x + 5\frac{1}{3}\right) + 4\frac{1}{3}$

12.  $(5x) \cdot 12$

13.  $(17.3 \cdot x) \cdot 1$

14.  $x \cdot 0 \cdot 16$

#### Answers for 1–6.

B. Addition Property of Zero

O. Commutative Property of Addition

A. Multiplication Property of One

K. Associative Property of Addition

T. Commutative Property of Multiplication

O. Associative Property of Multiplication

#### Answers for 7–14.

C.  $60x$

O.  $x + 6\frac{1}{2}$

K.  $21x$

I.  $33.6x$

S.  $9 + x$

A. 0

O.  $6x + 9\frac{2}{3}$

W.  $17.3x$

10	1		13	6	7		14		12	3	11	8	5	4	9	2
----	---	--	----	---	---	--	----	--	----	---	----	---	---	---	---	---



# 3.4 Puzzle Time

## Why Was The Shoelace Told To Stay After School?

Write the letter of each answer in the box containing the exercise number.

Use the Distributive Property and mental math to find the product.

1.  $4 \times 22$

2.  $\frac{1}{3} \times 3\frac{1}{2}$

3.  $6(89)$

4.  $17 \times 51$

5.  $\frac{1}{9} \times 18\frac{1}{4}$

6.  $7(6.2)$

Answers for 1–6.

T. 88

K. 534

C. 43.4

T.  $2\frac{1}{36}$

A. 867

O.  $1\frac{1}{6}$

Answers for 7–20.

N.  $8x + 6$

Y.  $4x + 20$

W.  $4x + 15$

N.  $7x$

N.  $2x - 16$

S.  $6x + 54$

C.  $2.8x - 7.56$

I.  $5x + 26$

O.  $7x + 9$

A.  $9x - 28.8$

U.  $\frac{33}{5}x - 12$

O.  $\frac{10}{3}x + \frac{1}{6}$

T.  $7x - 4$

T.  $10x + 50$

Use the Distributive Property to simplify the expression.

7.  $2(x - 8)$

8.  $4(x + 5)$

9.  $9(x - 3.2)$

10.  $7\left(x - \frac{4}{7}\right)$

11.  $6(9 + x)$

12.  $8\left(\frac{3}{4} + x\right)$

Simplify the expression.

13.  $8x + 18 - x - 9$

14.  $6x + 4x - 3x$

15.  $10(2 + x + 3)$

16.  $4(x + 6) - 9$

17.  $11 + 5(x + 3)$

18.  $\frac{3}{5}x + 6(x - 2)$

19.  $1.8(x - 4.2) + x$

20.  $\frac{1}{3}\left(x + \frac{1}{2}\right) + 3x$

13	7		4	19	6	2	18	12	10		17	1		16	9	11		3	14	20	5	15	8
----	---	--	---	----	---	---	----	----	----	--	----	---	--	----	---	----	--	---	----	----	---	----	---



## Puzzle Time

### Why Did The Sea Monster Eat Six Ships That Were Carrying Potatoes?

A	B	C	D	E	F
G	H	I	J		

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

$\frac{x}{3} = 12$ JUST
$550 + x = 1250$ SHIP
$x + 5 = 14$ IT
$x - 13 = 15$ ONE
$24 = 4 + x$ CAN

Write the word sentence as an equation.

- A. The sum of a number  $x$  and 5 equals 14.
- B. A number  $x$  decreased by 6 is 5.
- C. 7 times a number  $x$  is 42.
- D. A number  $x$  divided by 8 equals 11.
- E. 24 equals 4 more than a number  $x$ .
- F. 9 is one-third of a number  $x$ .
- G. 12 is the quotient of a number  $x$  and 3.
- H. 13 less than a number  $x$  equals 15.
- I. You throw a football 20 yards. Your friend throws the same football  $x$  yards. The football was thrown a total distance of 50 yards. Write an equation you can use to find the distance  $x$  that your friend threw the football.
- J. Students raised \$550 by having a car wash. They need \$1250. Write an equation you can use to find the amount  $x$  that the students still need to raise.

$\frac{x}{8} = 11$ ONE
$20 + x = 50$ POTATO
$7x = 42$ NO
$9 = \frac{1}{3}x$ EAT
$x - 6 = 5$ SEEMS

**7.2 Puzzle Time****What Do Kitty Cats Like To Eat For Breakfast?**

Write the letter of each answer in the box containing the exercise number.

**Solve the equation. Check your solution.**

1.  $p - 8 = 4$
2.  $k - 2 = 12$
3.  $9 = h - 15$
4.  $y + 4 = 7$
5.  $z + 5 = 21$
6.  $63 = r + 31$
7.  $x - 25 = 16$
8.  $26 = m + 18$
9.  $\frac{2}{3} = a - \frac{2}{3}$
10.  $f + \frac{1}{4} = \frac{7}{8}$
11.  $2.3 = q - 3.6$
12.  $j + 4.4 = 16.2$

**Answers**

K. 16

I.  $\frac{5}{8}$

E. 24

S. 14

R. 5.9

C. 41

I. 32

P. 12

S. 8

M. 3

E. 11.8

I.  $1\frac{1}{3}$

4	10	7	12		5	11	9	2	1	6	3	8
---	----	---	----	--	---	----	---	---	---	---	---	---



# 7.3 Puzzle Time

## What Did The Dirt Say When It Began To Rain?

A	B	C	D	E	F
G	H	I	J	K	L
M	N	O	P		

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

7 NAME
56 WILL
54 IF
9 MUD
10 MY
13 WILL
2 CALLED
40 HEAVY

Solve the equation. Check your solution.

A.  $\frac{a}{9} = 6$

B.  $7 = \frac{z}{6}$

C.  $y \div 4 = 10$

D.  $25 = \frac{k}{5}$

E.  $2s = 16$

F.  $8 \cdot t = 96$

G.  $50 = 5x$

H.  $56 = 8k$

I.  $4b = 52$

J.  $39 = 6 \cdot c$

K.  $14 = n \div 5$

L.  $10 = v \div 6$

M.  $x \div 16 = 3.5$

N.  $\frac{w}{25} = 4.4$

O.  $11.5 \cdot d = 23$

P.  $4.5v = 40.5$

12 UP
6.5 CHANGE
125 RAIN
110 BE
42 THIS
8 KEEPS
60 I
70 AND

**Puzzle Time****Which Are The Strongest Shellfish On The Beach?**

Write the letter of each answer in the box containing the exercise number.

**Tell whether the ordered pair is a solution of the equation.**

1.  $y = 6x$ ;  $(0, 3)$

R. Yes

S. No

2.  $y = 4x$ ;  $(1, 4)$

U. Yes

V. No

3.  $y = 3x - 7$ ;  $(4, 5)$

E. Yes

F. No

4.  $y = x + 8$ ;  $(2, 12)$

R. Yes

S. No

5.  $y = 9x - 9$ ;  $(1, 0)$

L. Yes

M. No

**Identify the independent and dependent variables.**

6. The equation  $A = 32\ell$  gives the area  $A$  in square feet of a rectangular concession stand with a length of  $\ell$  feet.

S. Independent:  $\ell$ ; Dependent:  $A$

T. Independent:  $A$ ; Dependent:  $\ell$

7. The equation  $C = 15p + 100$  gives the total cost  $C$  in dollars of the annual banquet with  $p$  people in attendance.

L. Independent:  $C$ ; Dependent:  $p$

M. Independent:  $p$ ; Dependent:  $C$

7	2	6	4	3	5	1



# 7.5 Puzzle Time

## What Kind Of Cheese Comes With A House?

Write the letter of each answer in the box containing the exercise number.

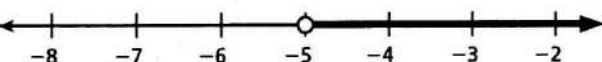


Write the word sentence as an inequality.

- A number  $x$  is more than 15.
- A number  $b$  is less than 23.
- A number  $y$  is at most 8.
- Three plus a number  $a$  is greater than or equal to 19.

Tell whether the given value is a solution of the inequality.

- $\frac{a}{4} > 5$ ;  $a = 28$
- $z + 4.5 \leq 13$ ;  $z = 9.5$

Write an inequality that represents the graph.

- 
- 
- 

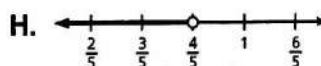
Match each inequality with its graph.

- $x < \frac{4}{5}$
- $a \geq -3$
- $p \leq 2.6$
- $y > -\frac{2}{3}$

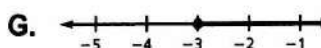
### Answers

E.  $x > -5$       C.  $y \leq 8$

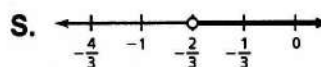
T.  $x \geq -3$



E.  $x > 15$       A. no

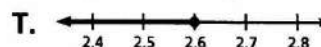


E.  $3 + a \geq 19$



O.  $b < 23$

C.  $x \leq 7$



E. yes

8	2	12	9	6	11	5		3	10	1	7	13	4
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# 7.6 Puzzle Time

## A Man Went To the Rocket Station And Asked For A Ticket To The Moon...

A	B	C	D	E	F
G	H	I	J	K	L

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

$x < 11$   
  
**I'M**

$x \leq 22.4$   
  
**FULL**

$x \leq 17$   
  
**ATTENDANT**

$x > \frac{1}{6}$   
  
**NOW**

$x < 110$   
  
**THE**

$x \geq 9$   
  
**SAID**

Solve the inequality. Graph the solution.

- A.  $x - 5 < 6$   
 B.  $7 + x > 9$   
 C.  $5 \geq x - 7$   
 D.  $12 \leq x + 3$   
 E.  $20 > 14 + x$   
 F.  $39 + x \leq 56$   
 G.  $x - 23 < 87$   
 H.  $x - 19 \geq 19$   
 I.  $8.4 < x + 4.2$   
 J.  $14.9 \geq x - 7.5$   
 K.  $\frac{7}{8} \leq \frac{1}{4} + x$   
 L.  $\frac{1}{2} + x > \frac{2}{3}$

$x \geq \frac{5}{8}$   
  
**RIGHT**

$x \leq 12$   
  
**SIR**

$x < 6$   
  
**THE**

$x \geq 38$   
  
**MOON**

$x > 2$   
  
**SORRY**

$x > 4.2$   
  
**IS**



## Puzzle Time

### How Many Paws Does A Bear Have?

Write the letter of each answer in the box containing the exercise number.

Solve the inequality. Graph the solution.

1.  $\frac{x}{9} < 5$
2.  $x + 7 > 3$
3.  $\frac{x}{4} \geq 16$
4.  $11x < 99$
5.  $6 \cdot x \geq 30$
6.  $8x \leq 64$
7.  $\frac{1}{5}x > 14$
8.  $\frac{3}{4}x < 24$
9.  $\frac{7}{9}x \geq 63$
10.  $\frac{1}{2}x \leq 55$
11.  $\frac{5}{6}x > 25$
12.  $8x < 96$

#### Answers

- M.  $x \leq 8$
- N.  $x \geq 64$
- A.  $x < 12$
- W.  $x < 32$
- A.  $x < 45$
- O.  $x \leq 110$
- W.  $x < 9$
- D.  $x > 70$
- N.  $x > 30$
- P.  $x > 21$
- A.  $x \geq 81$
- E.  $x \geq 5$

10	3	5		2	12	8		9	11	7		6	1	4
----	---	---	--	---	----	---	--	---	----	---	--	---	---	---

# Part 1: Answer Key

*Below you will find the answer to the silly question being asked at the beginning of each worksheet.*

## Chapter 1:

### Lesson 1.1 Puzzle Time

- SPIDER THAT ASKED TO TEST DRIVE A CAR BECAUSE HE WANTED TO TAKE IT FOR A SPIN

### Lesson 1.2 Puzzle Time

- THE BASEBALL PLAYER WHO CREATED A WEB SITE BECAUSE HE WANTED TO GET A LOT OF HITS

### Lesson 1.3 Puzzle Time

- KING HENRY THE GRAPE

### Lesson 1.4 Puzzle Time

- THE CAMPER WHO BOUGHT A NEW SLEEPING BAG AND HAD TO SPEND TWO WEEKS TRYING TO WAKE IT UP

### Lesson 1.5 Puzzle Time

- HE WAS A LITTLE COLT

### Lesson 1.6 Puzzle Time

- IT GETS A BYTE TO EAT
- 

## Chapter 2:

### Lesson 2.1 Puzzle Time

- HE ALREADY HAD DRUMSTICKS

### Lesson 2.2 Puzzle Time

- HE HAD A LOT OF TIME ON HIS HANDS

### Lesson 2.3 Puzzle Time

- EXTRA HOLD BUG SPRAY

### Lesson 2.4 Puzzle Time

- THE BIRD WHO STUCK HIS BEAK INTO A LIGHT SOCKET SO HE COULD HAVE AN ELECTRIC BILL

### Lesson 2.5 Puzzle Time

- HE RAN OVER THE GHOUL LINE

### Lesson 2.6 Puzzle Time

- SHE WAS A BEE STUDENT

### Chapter 3:

#### Lesson 3.1 Puzzle Time

- THEY HAD SLEEPLESS KNIGHTS

#### Lesson 3.2 Puzzle Time

- SQUEAL OF FORTUNE

#### Lesson 3.3 Puzzle Time

- IT WAS A COOKBOOK

#### Lesson 3.4 Puzzle Time

- ON ACCOUNT IT WAS KNOTTY
- 

### Chapter 7:

#### Lesson 7.1 Puzzle Time

- IT SEEMS NO ONE CAN EAT JUST ONE POTATO SHIP

#### Lesson 7.2 Puzzle Time

- MICE KRISPIES

#### Lesson 7.3 Puzzle Time

- IF THIS HEAVY RAIN KEEPS UP MY NAME WILL CHANGE AND I WILL BE CALLED MUD

#### Lesson 7.4 Puzzle Time

- MUSSELS

#### Lesson 7.5 Puzzle Time

- COTTAGE CHEESE

#### Lesson 7.6 Puzzle Time

- I'M SORRY SIR SAID THE ATTENDANT THE MOON IS FULL RIGHT NOW

#### Lesson 7.7 Puzzle Time

- ONE PAW AND MAW

# Ms. Olsen's 2020-2021 Summer Math Packet *(part 2)*

*The following consist of practice worksheets for the chapters we did not complete/get to within the 2020-2021 school year.*

## The topics are as follows:

### Chapter 4

- Lesson 4.1: Area of Parallelograms
- Lesson 4.2: Areas of Triangles
- Lesson 4.3: Areas of Trapezoids
- Lesson 4.4: Polygons in the Coordinate Plane

### Chapter 5

- Lesson 5.1: Ratios
- Lesson 5.2: Ratio Tables
- Lesson 5.3: Rates
- Lesson 5.4: Comparing and Graphing Ratios
- Lesson 5.5: Percents
- Lesson 5.6: Solving Percent Problems
- Lesson 5.7: Converting Measures

### Chapter 6

- Lesson 6.1: Integers
- Lesson 6.2: Comparing and Ordering Integers
- Lesson 6.3: Fractions and Decimals on the Number Line
- Lesson 6.4: Absolute Value
  - *Note that we did work on this lesson in week 36*
- Lesson 6.5: The Coordinate Plane
  - *Note that we did work on this lesson in week 37*

### Chapter 8

- Lesson 8.1: Three-Dimensional Figures
- Lesson 8.2: Surface Areas of Prisms
- Lesson 8.3: Surface Area of Pyramids
- Lesson 8.4: Volumes of Rectangular Prisms

### Chapter 9

- Lesson 9.1: Introduction to Statistics
- Lesson 9.2: Mean
- Lesson 9.3: Measures of Center
- Lesson 9.4: Measures of Variation
- Lesson 9.5: Mean Absolute Deviation

### Chapter 10

- Lesson 10.1: Stem-and-Leaf Plots
- Lesson 10.2: Histograms
- Lesson 10.3: Shapes of Distributions
- Lesson 10.4: Box-and-Whisker Plots

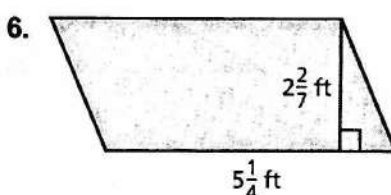
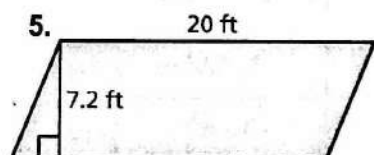
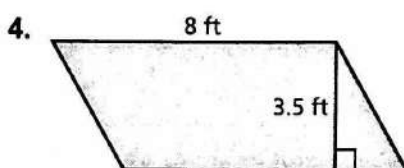
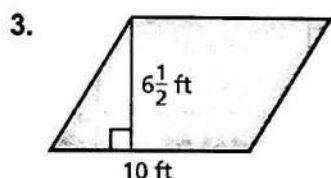
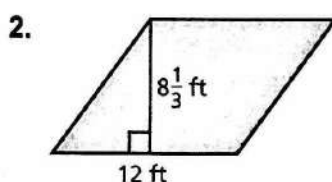
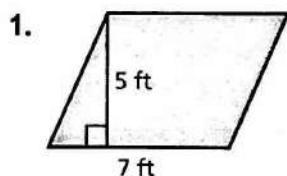


## Puzzle Time

### What Is A Teacher's Favorite Ice Cream Flavor?

Write the letter of each answer in the box containing the exercise number.

Find the area of the parallelogram.



#### Answers

L.  $100 \text{ ft}^2$

A.  $144 \text{ ft}^2$

O.  $35 \text{ ft}^2$

L.  $12 \text{ ft}^2$

T.  $50 \text{ ft}^2$

H.  $39 \text{ ft}^2$

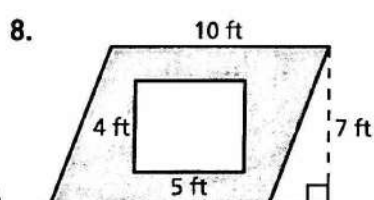
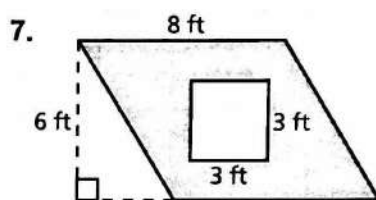
A.  $65 \text{ ft}^2$

K.  $108 \text{ ft}^2$

E.  $28 \text{ ft}^2$

C.  $44 \text{ ft}$

Find the area of the shaded region.



9. A badminton court has an area of 880 square feet. The width of the court is 20 feet. What is the length of the badminton court?
10. You are playing the game Four Square on a 12-foot by 12-foot court. Your square is 6-foot by 6-foot. What is the area of the Four Square court not including your square?

9	7	3	6	10		1		2	5	8	4
					-		-				

# 4.2 Puzzle Time

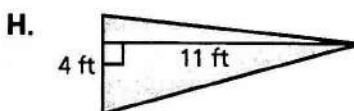
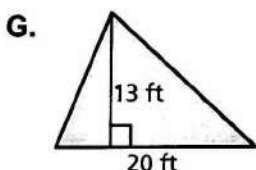
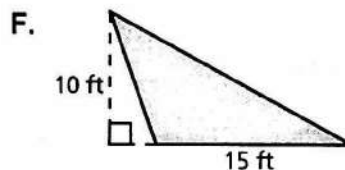
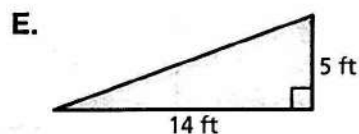
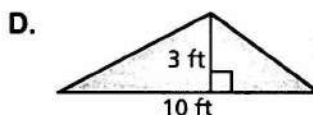
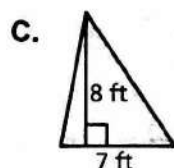
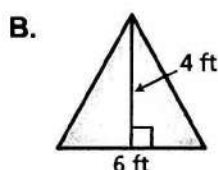
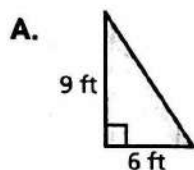
## Did You Hear About The...

A	B	C	D	E	F
G	H	I	J		

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

16 ft <sup>2</sup> WITH
14 ft <sup>2</sup> PET
35 ft <sup>2</sup> WATCH
12 ft <sup>2</sup> THAT
75 ft <sup>2</sup> AND
29 ft <sup>2</sup> TAIL
28 ft <sup>2</sup> SWALLOWED
22 ft <sup>2</sup> UP
154 ft <sup>2</sup> LEASH

Find the area of a triangle.



130 ft <sup>2</sup> ENDED
32 ft <sup>2</sup> CAT
168 ft <sup>2</sup> TICKS
82 ft <sup>2</sup> FLEAS
15 ft <sup>2</sup> A
140 ft <sup>2</sup> WAS
54 ft <sup>2</sup> BARKED
60 ft <sup>2</sup> WHO
27 ft <sup>2</sup> DOG

- I. Your neighbor adds a triangular section to his driveway with a base of 4 feet and a height of 8 feet. What is the area of the new section of driveway?
- J. A triangular flower bed has a base of 12 feet and a height of 28 feet. What is the area of the flower bed?





# 4.3 Puzzle Time

## Did You Hear About...

A	B	C	D	E	F
G	H	I	J	K	

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

42 in. <sup>2</sup> TO
7 in. <sup>2</sup> WAS
70 in. <sup>2</sup> KEPT
49 in. <sup>2</sup> DRIVE
84 in. <sup>2</sup> WASN'T
54 in. <sup>2</sup> HARD
60 in. <sup>2</sup> KEYS
15 in. <sup>2</sup> COMPUTER
80 in. <sup>2</sup> BECAUSE

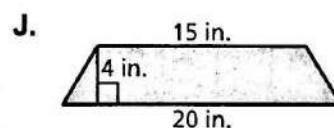
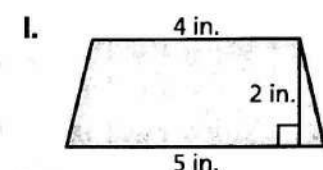
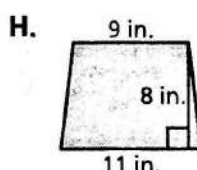
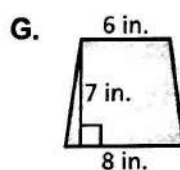
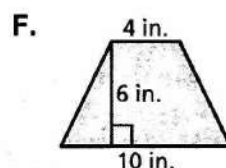
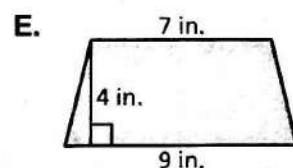
Find the area of the trapezoid.

A.  $b_1 = 8$  in.;  $b_2 = 12$  in.;  $h = 5$  in.

B.  $b_1 = 3$  in.;  $b_2 = 7$  in.;  $h = 3$  in.

C.  $b_1 = 10$  in.;  $b_2 = 14$  in.;  $h = 8$  in.

D.  $b_1 = 7$  in.;  $b_2 = 17$  in.;  $h = 7$  in.



K. A rearview mirror is in the shape of a trapezoid that is 11 inches long across the bottom, 9 inches long across the top, and 3 inches high. What is the area of the rearview mirror?

9 in. <sup>2</sup> IT
96 in. <sup>2</sup> THAT
100 in. <sup>2</sup> DID
50 in. <sup>2</sup> THE
90 in. <sup>2</sup> WOULD
21 in. <sup>2</sup> MEMORY
30 in. <sup>2</sup> CRASHING
18 in. <sup>2</sup> BOOTING
32 in. <sup>2</sup> ALLOWED



## Puzzle Time

### What Do You Call A Bunch Of Toads Stacked On Top Of Each Other?

Circle the letter of each correct answer in the boxes below. The circled letters will spell out the answer to the riddle.

Find the length of the line segment connecting the points.

1.  $A(1, 2), B(9, 2)$
2.  $I(6, 3), J(6, 7)$
3.  $O(4, 5), P(4, 10)$
4.  $C(3, 3), D(6, 3)$
5.  $M(2, 0), N(8\frac{1}{2}, 0)$
6.  $P(10\frac{1}{4}, 1), Q(10\frac{1}{4}, 7)$

Find the perimeter of the polygon with the given vertices.

7.  $A(2, 3), B(8, 3), C(8, 9), D(2, 9)$
8.  $E(4\frac{1}{2}, 1), F(4\frac{1}{2}, 6), G(8\frac{1}{2}, 6), H(8\frac{1}{2}, 1)$

Find the area of the polygon with the given vertices.

9.  $I(2, 2), J(2, 5), K(5, 5), L(5, 2)$
10.  $M(1, 0), N(1, 6), O(7\frac{1}{2}, 6), P(7\frac{1}{2}, 0)$
11. You design a bean-bag toss board using a coordinate plane. You plot the vertices of the board at  $C(3, 2), D(3, 6), E(5, 2),$  and  $F(5, 6)$ . What is the perimeter of the bean-bag toss board?

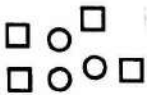
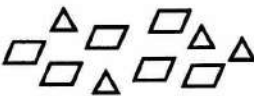
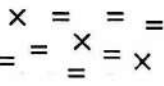
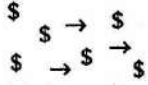
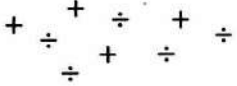

M	A	B	I	U	T	W	L	O	G	P	A	F	D	Z	D	Y	E	K
44	24	52	1	60	12	14	61	8	23	20	$6\frac{1}{2}$	16	$4\frac{1}{2}$	62	6	63	18	11
V	J	T	M	S	C	N	P	H	A	Q	O	M	X	L	E	A	E	R
46	53	2	3	54	$3\frac{1}{2}$	45	9	13	10	17	4	$5\frac{1}{2}$	15	39	50	7	5	19

# 5.1 Puzzle Time

## Did You Hear About The...

A	B	C	D	E	F
G	H	I	J	K	L

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

17 to 5 AND	<p><b>Write the ratio.</b></p> <p><b>A.</b> circles to squares</p>  <p><b>B.</b> triangles to parallelograms</p>  <p><b>C.</b> multiplication signs to equal signs</p>  <p><b>D.</b> dollar signs to arrows</p>  <p><b>E.</b> addition signs to division signs</p>  <p><b>F.</b> squares to triangles to circles</p> 	1 to 6; 1 : 6 MUST
2 : 11 FAST		12 HAPPY
3 to 7; 3 : 7 THAT		2 to 3 to 4; 2 : 3 : 4 EACH
4 to 5; 4 : 5 INTO		3 : 5 : 7 OXIDENT
75 COW		4 to 6; 4 : 6 OXEN
25 SUNSHINE		7 : 17 IT
3 to 4; 3 : 4 TWO		6 to 3; 6 : 3 BUMPED
65 CART		1 to 2; 1 : 2 ROCKS
7 to 2 AN		80 GRASS
5 to 6; 5 : 6 HORSE		3 to 17 OTHER
3 : 5 WAS	64 WEATHER	

Use the table to write the ratio.

Music	Rock	Hip Hop	Country	Jazz
Number	3	7	5	2

- G.** rock to music      **H.** music to country
- I.** hip hop : music      **J.** rock : country
- K.** hip hop to jazz      **L.** rock : country : hip hop



## Puzzle Time

### How Can A Leopard Change His Spots?

Write the letter of each answer in the box containing the exercise number.

Find the missing value(s) in the ratio table.

1.

Butterflies	2	
Flowers	7	14

2.

Nickels	6	12
Dimes	11	

3.

Apples	5		15
Oranges	6	12	

4.

Carrots	8	16	
Cucumbers	3		9

5.

Cats	3		9
Dogs	2	4	

6.

Pens	3	6	
Pencils	4		12

Complete the ratio table to solve the problem.

7. For every 2 laps you swim, your friend swims 3 laps. You swim a total of 8 laps. How many laps does your friend swim?

You	2	8
Friend	3	

8. An amusement park sells 5 bottles of water for every 2 bottles of juice. In one hour, the amusement park sells 20 bottles of water. How many bottles of juice does the amusement park sell?

Water	5	20
Juice	2	

6	2		8	3	1	5	7	4
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#### Answers

I. 6, 6

Y. 22

M. 8

V. 4

G. 6, 24

N. 12

O. 10, 18

B. 8, 9

# **5.3 Puzzle Time**

## Where Does An Umpire Like To Sit When He Is Eating Dinner?

Write the letter of each answer in the box containing the exercise number.

**Write a rate that represents the situation.**

1. 45 meters in 6 seconds
2. 3 meters in 4 seconds
3. 2.80 meters in 5 seconds
4. 12 meters in 3 seconds
5. 35 meters in 20 seconds
6. 10 meters in 60 seconds

**Write a unit rate for the situation.**

7. \$45.00 for 9 pounds
8. \$24 for 3 pounds
9. \$390 for 6 pounds
10. \$42 for 21 pounds
11. \$180 for 10 pounds
12. \$864 for 8 pounds

**Decide whether the rates are equivalent.**

13. 9 miles in 3 hours  
27 miles in 6 hours
14. 152 points in 8 games  
171 points in 9 games

### Answers

- T. \$108 per pound
- P. 35 meters : 20 seconds
- E. 45 meters : 6 seconds
- B. 12 meters : 3 seconds
- E. \$8 per pound
- T. 3 meters : 4 seconds
- I. 2.80 meters : 5 seconds
- A. \$18 per pound
- L. \$5 per pound
- D. 10 meters : 60 seconds
- H. \$65 per pound
- N. \$2 per pound
- E. yes
- H. no

4	1	9	3	10	6		12	13	8		5	7	11	2	14
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## Puzzle Time

### What Do You Call A Frog With A Cast On Each Of Its Back Legs?

Write the letter of each answer in the box containing the exercise number.

Determine which car gets the better gas mileage.

1.

Car	A	B
Distance (miles)	180	175
Gallons Used	6	7

Y. Car A                      Z. Car B

2.

Car	A	B
Distance (miles)	234	140
Gallons Used	9	5

N. Car A                      O. Car B

3.

Car	A	B
Distance (miles)	400	630
Gallons Used	20	18

T. Car A                      U. Car B

4.

Car	A	B
Distance (miles)	315	228
Gallons Used	15	12

P. Car A                      Q. Car B

Determine which is the better buy.

5.

Apples	A	B
Cost (dollars)	3.75	4.50
Pounds	3	5

M. Brand A                      N. Brand B

6.

Toothpaste	A	B
Cost (dollars)	2.64	3.60
Ounces	6	8

P. Brand A                      Q. Brand B

7. Participant A did 120 jumping jacks in 10 minutes. Participant B did 140 jumping jacks in 14 minutes. Which participant had the greater jumping jack rate?

H. Participant A                      I. Participant B

3	5	7	2	4	6	1
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## Puzzle Time

### What Did The Alien From Outer Space Say To The Green Book?

Write the letter of each answer in the box containing the exercise number.

Write the percent as a fraction or mixed number in simplest form.

1. 35%
2. 30%
3. 55%
4. 84%
5. 59%
6. 43.9%
7. 144%
8. 2.5%
9. 334%
10. 132.6%
11. 0.8%

Write the fraction as a percent.

12.  $\frac{1}{5}$
13.  $\frac{2}{5}$
14.  $\frac{11}{25}$
15.  $\frac{3}{25}$
16.  $\frac{29}{50}$
17.  $2\frac{16}{25}$
18.  $3\frac{1}{20}$
19.  $1\frac{7}{10}$

#### Answers for Exercises 1–11

- |                       |                     |
|-----------------------|---------------------|
| E. $1\frac{163}{500}$ | R. $1\frac{11}{25}$ |
| D. $\frac{439}{1000}$ | A. $\frac{11}{20}$  |
| O. $\frac{7}{20}$     | L. $\frac{1}{40}$   |
| T. $\frac{59}{100}$   | E. $\frac{1}{125}$  |
| R. $3\frac{17}{50}$   | U. $\frac{3}{10}$   |
| S. $\frac{21}{25}$    |                     |

#### Answers for Exercises 12–19

- |         |         |
|---------|---------|
| R. 58%  | O. 40%  |
| E. 305% | A. 264% |
| M. 20%  | Y. 170% |
| D. 12%  | E. 44%  |

8	14	3	6		12	18		5	1		19	13	2	9		16	10	17	15	11	7	4
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## Puzzle Time

### Why Was The Math Textbook Feeling Sad?

Write the letter of each answer in the box containing the exercise number.

Find the percent of the number.

1. 10% of 50
2. 20% of 30
3. 25% of 40
4. 4% of 50
5. 40% of 60
6. 50% of 38
7. 60% of 70
8. 75% of 20
9. 15% of 10
10. 16% of 80
11. 17% of 25
12. 42% of 20

Find the whole.

13. 30% of what number is 9?
14. 50% of what number is 11?
15. 25% of what number is 20?
16. 60% of what number is 21?
17. 75% of what number is 12?
18. 10% of what number is 6?
19. 120% of what number is 48?
20. 150% of what number is 75?
21. The length of a rectangle is 16 inches. If the width is 50% of its length, what is the width of the rectangle?
22. In your math class, 60% of the students are girls. If there are 15 girls in the class, how many students are in your math class?

#### Answers for Exercises 1–12

- |                    |                   |
|--------------------|-------------------|
| D. $8\frac{2}{5}$  | F. $1\frac{1}{2}$ |
| O. 6               | S. 19             |
| L. 42              | M. $4\frac{1}{4}$ |
| H. 24              | L. 10             |
| A. $12\frac{4}{5}$ | E. 5              |
| G. 2               | P. 15             |

#### Answers for Exercises 13–22

- |       |       |
|-------|-------|
| T. 60 | S. 35 |
| P. 22 | B. 50 |
| I. 8  | R. 30 |
| E. 40 | E. 25 |
| L. 80 | E. 16 |

8	13	2	20	7	22	11	16		9	21	3	15	1	12		18	5	17		14	10	4	19	6
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## Puzzle Time

### How Do You Fix A Broken Pizza?

Write the letter of each answer in the box containing the exercise number.

Complete the statement. Round to the nearest hundredth, if necessary.

1. 72 in. =   ?   cm
2. 3 qt  $\approx$    ?   L
3. 15 lb  $\approx$    ?   kg
4. 120 mi  $\approx$    ?   km
5. 7 L  $\approx$    ?   qt
6. 75 kg  $\approx$    ?   lb
7. 5 km  $\approx$    ?   mi
8. 54 cm  $\approx$    ?   in.
9.  $\frac{24 \text{ in.}}{\text{h}} = \frac{? \text{ cm}}{\text{h}}$
10.  $\frac{32 \text{ lb}}{\text{day}} \approx \frac{? \text{ kg}}{\text{day}}$
11.  $\frac{52 \text{ L}}{\text{year}} \approx \frac{? \text{ qt}}{\text{year}}$
12.  $\frac{7 \text{ km}}{\text{min}} \approx \frac{? \text{ mi}}{\text{min}}$
13. Felicia is 63 inches tall. What is her height in centimeters?
14. Your backpack weighs 6 kilograms. What is its weight in pounds?
15. If the speed limit is 65 miles per hour, how many kilometers per hour can a person drive without speeding?

#### Answers

- P. 160.02  
 I. 182.88  
 W. 21.06  
 T. 13.2  
 H. 193.2  
 A. 2.85  
 T. 14.4  
 O. 3.1  
 A. 104.65  
 S. 165  
 T. 55.12  
 O. 7.42  
 E. 6.75  
 M. 4.34  
 T. 60.96

8	1	11	4		14	5	12	2	9	7		13	15	6	10	3
---	---	----	---	--	----	---	----	---	---	---	--	----	----	---	----	---



## Puzzle Time

### What Do You Get When You Cross An Electrical Eel With A Sponge?

Write the letter of each answer in the box containing the exercise number.

Write a positive or negative integer that represents the situation.

1. Lisa puts 14 dollars into her piggy bank.
2. You are playing a game and must go back 4 spaces.
3. Claire loses 5 points on a spelling test.
4. The football team scores 21 points in the game.
5. Your dad gains 5 pounds.
6. Addison gets 4 bonus points on the science test.
7. The temperature drops 14 degrees.
8. You take 21 dollars out of your bank account.

#### Answers

- O. 21
- A. -18
- R. -4
- K. -14
- B. -6
- S. 7
- B. 18
- H. -5
- O. 4
- S. 14
- C. -15
- R. -21
- S. 5
- E. 15

Identify the location of the point on the number line.



9. A
10. B
11. C
12. D
13. E
14. F

11	3	6	13	7		12	10	1	4	8	14	9	2	5
----	---	---	----	---	--	----	----	---	---	---	----	---	---	---

# **6.2** Puzzle Time

## Did You Hear About The...

A	B	C	D	E	F
G	H	I	J	K	L
M					

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

-5, -4, 1, 6 GOT
-7, -17, 7, 17 LIFT
-3, 3, -13, -33 DOWN
-1, -2, -4, -5 WHEN
-6 BECAUSE
-300 EXERCISE
4 DUMBBELLS
-5, -4, -2, -1 UP
-8 ALWAYS
-68, -8, 0, 60 THE

**Which number is greater?**

- A. 4, 1                      B. 7, -7  
C. -2, 5                    D. -8, -9  
E. -4, -3                   F. -6, -11

**Order the integers from least to greatest.**

- G. 2, -6, 0, -3              H. -4, 6, -5, 1  
I. 7, -7, 17, -17            J. -2, -5, -1, -4  
K. 3, -3, -13, -33          L. 0, -8, 60, -68  
M. After the first round on a television game show, the three contestants have -\$300, \$600, and -\$400 respectively. Which of the three dollar amounts represents the lowest score in the game?

0, -8, 60, -68 RAN
-33, -13, -3, 3 AT
-400 GYM
5 WERE
-3, -6, 0, 2 EARLY
-3 LATE
-6, -3, 0, 2 THEY
7 THAT
-17, -7, 7, 17 HELD
-11 WEIGHTS



## Puzzle Time

### What Did One Plate Say To The Other Plate?

Write the letter of each answer in the box containing the exercise number.

Which number is greater?

1.  $-\frac{1}{2}, \frac{3}{5}$

2.  $-\frac{2}{3}, -\frac{5}{6}$

3.  $-5\frac{1}{4}, -5\frac{1}{2}$

4.  $-2\frac{7}{8}, -2\frac{3}{4}$

5. 4.8, -4.2

6. -21.5, -21.05

7. -3.07, -3.14

Order the numbers from least to greatest.

8. 3.4, -4, -2.7, 0, -2.85

9.  $3, -2\frac{1}{4}, -2\frac{1}{6}, 3\frac{1}{5}, -2\frac{3}{4}$

10. Use a number line to determine which number is between -4.4 and -5.8.

A. -5.68      B. -4.14      C. -5.92

11. Use a number line to determine which number is between -2.61 and -5.49.

A. -2.49      B. -5.51      C. -3.11

#### Answers

H.  $-2\frac{3}{4}, -2\frac{1}{4}, -2\frac{1}{6}, 3, 3\frac{1}{5}$

O.  $-\frac{2}{3}$

M. -21.05

N.  $\frac{3}{5}$

E.  $-2\frac{3}{4}$

N. -3.07

U. A

S. 4.8

L. -4, -2.85, -2.7, 0, 3.4

C.  $-5\frac{1}{4}$

I. C

8	10	1	3	9		11	5		2	7		6	4
---	----	---	---	---	--	----	---	--	---	---	--	---	---



# Puzzle Time

## Did You Hear About The...

A	B	C	D	E	F
G	H	I	J	K	L
M	N	O	P		

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

27 BECAME
-3, -1, $ -2 $ , $ -4 $ IN
$\frac{1}{8}$ BASEBALL
$-16^{\circ}\text{F}$ COULD
-9, -6, 0, $ -9 $ BULL
12.72 AND
$-2^{\circ}\text{F}$ BE
4 MATADOR
$\frac{6}{7}$ CATCHER

Find the absolute value.

- A.  $|-4|$                       B.  $|6|$   
C.  $|-27|$                       D.  $|18|$   
E.  $|\frac{1}{8}|$                       F.  $|-4\frac{1}{3}|$   
G.  $|-12.72|$                       H.  $|-9.61|$

Tell which temperature is closest to  $0^{\circ}\text{F}$ .

- I. Anchorage:  $-16^{\circ}\text{F}$  or Richmond:  $46^{\circ}\text{F}$   
J. Minneapolis:  $-22^{\circ}\text{F}$  or New York:  $20^{\circ}\text{F}$   
K. Boston:  $-2^{\circ}\text{F}$  or Washington:  $38^{\circ}\text{F}$   
L. Detroit:  $-19^{\circ}\text{F}$  or Chicago:  $-8^{\circ}\text{F}$

Order the values from least to greatest.

- M.  $|-2|$ , -3, -1,  $|-4|$   
N. -5,  $|-7|$ , -9,  $|-3|$   
O. -6, 0,  $|-9|$ , -9  
P.  $|-5|$ , -5, -3,  $|-3|$

6 WHO
$-8^{\circ}\text{F}$ FOUND
9.61 HE
-5, -3, $ -3 $ , $ -5 $ PEN
18 A
$20^{\circ}\text{F}$ ALWAYS
-9, -5, $ -3 $ , $ -7 $ THE
$4\frac{1}{3}$ PLAYER
$\frac{2}{3}$ UMPIRE



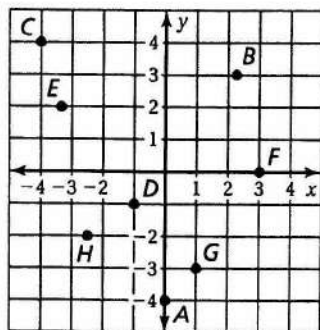
## Puzzle Time

### What Has Stars and Stripes?

Write the letter of each answer in the box containing the exercise number.

Write an ordered pair corresponding to the point.

1. Point A
2. Point B
3. Point C
4. Point D
5. Point E
6. Point F
7. Point G
8. Point H



Plot the ordered pair in a coordinate plane. Describe the location of the point.

9.  $(6, -2)$
10.  $(2\frac{1}{8}, 6)$
11.  $(-1, 2)$
12.  $(-4.8, -6.1)$

Plot the points and find the distance between the points.

13.  $(3, -4), (7, -4)$
14.  $(5\frac{1}{2}, 3), (5\frac{1}{2}, -2)$

15.  $(2, -2.4), (2, 4.6)$
16.  $(-1, 4), (-1, 6)$

17. A rectangle is drawn in a coordinate plane with the vertices  $A(-3, 4)$ ,  $B(6, 4)$ ,  $C(6, -3)$ , and  $D(-3, -3)$ . Find the area of the rectangle.

#### Answers for 1–8

O.  $(2.25, 3)$  E.  $(-3\frac{1}{3}, 2)$

A.  $(0, -4)$  E.  $(-4, 4)$

A.  $(3, 0)$

I.  $(-2\frac{1}{2}, -2)$

O.  $(-1, -1)$  U.  $(1, -3)$

#### Answers for 9–12

A. Quadrant I

T. Quadrant II

R. Quadrant III

A. Quadrant IV

#### Answers for 13–17

B. 7 Z. 63

B. 4 V. 5

M. 2

9		16	4	14	8	3		10	13	2	7	11		6		17	5	15	12	1
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## 8.1 Puzzle Time

### What Do You Get When You Cross An Elephant With A Fish?

Write the letter of each answer in the box containing the exercise number.

Identify the solid that is described.

1. One pentagonal base and five lateral faces that are triangles.
2. One rectangular base and four lateral faces that are triangles
3. Two parallel, triangular bases and three lateral faces that are rectangles
4. Two parallel, pentagonal bases and five lateral faces that are rectangles
5. Two parallel, square bases and four lateral faces that are squares
6. Two parallel, rectangular bases and four lateral faces that are rectangles
7. One triangular base and three lateral faces that are triangles

Determine the correct number.

8. The number of vertices on a cube
9. The number of lateral faces on a triangular prism
10. The number of lateral faces on a pentagonal prism
11. The number of vertices on a pentagonal pyramid
12. The number of vertices on a triangular pyramid
13. The number of edges on a rectangular prism
14. The number of vertices on a pentagonal prism

#### Answers for Exercises 1–7

- S. Pentagonal Prism  
 G. Triangular Pyramid  
 N. Pentagonal Pyramid  
 R. Rectangular Prism  
 I. Rectangular Pyramid  
 M. Cube  
 U. Triangular Prism

#### Answers for Exercises 8–14

- K. 6  
 I. 8  
 T. 12  
 S. 5  
 M. 4  
 W. 10  
 N. 3

10	14	8	5	12	2	9	7		13	6	3	1	11	4
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## Puzzle Time

### What Do You Call A Person Who Makes Faces All Day Long?

Write the letter of each answer in the box containing the exercise number.

Find the surface area of the prism.

1. A cube that has side lengths measuring 9 inches.
2. A cube that has side lengths measuring 7 inches.
3. A rectangular prism that measures 6 inches by 8 inches by 4 inches.
4. A rectangular prism that measures 3 inches by 5 inches by 10 inches.
5. A rectangular prism that measures 7 inches by 7 inches by 4 inches.
6. A rectangular prism that measures 3 inches by 6 inches by 12 inches.
7. A rectangular prism that measures 2 inches by 5 inches by 8 inches.
8. A triangular prism with bases that are right triangles measuring 5 inches by 12 inches by 13 inches. The height of the prism is 2 inches.
9. A triangular prism with bases that are right triangles measuring 7 inches by 24 inches by 25 inches. The height of the prism is 3 inches.
10. A triangular prism with bases that have a base of 16 inches, the legs are 10 inches, and a height of 6 inches. The height of the prism is 11 inches.
11. A triangular prism with bases that have a base of 18 inches, the legs are 15 inches, and a height of 12 inches. The height of the prism is 7 inches.

#### Answers

- M.** 190 in.<sup>2</sup>  
**E.** 208 in.<sup>2</sup>  
**C.** 552 in.<sup>2</sup>  
**L.** 210 in.<sup>2</sup>  
**R.** 492 in.<sup>2</sup>  
**C.** 120 in.<sup>2</sup>  
**K.** 132 in.<sup>2</sup>  
**O.** 294 in.<sup>2</sup>  
**A.** 486 in.<sup>2</sup>  
**A.** 336 in.<sup>2</sup>  
**K.** 252 in.<sup>2</sup>

1		8	5	2	11	7	4	9	6	3	10
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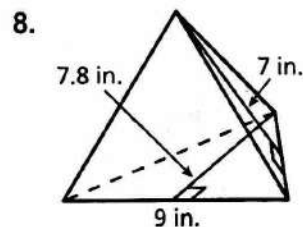
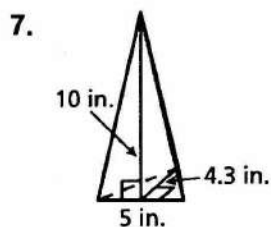
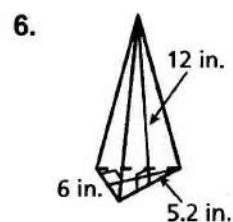
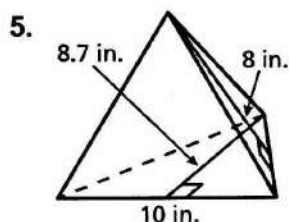
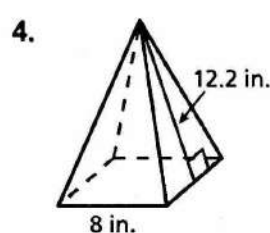
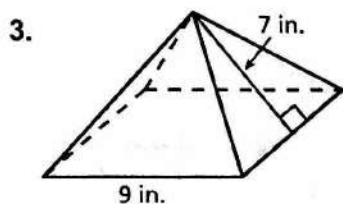
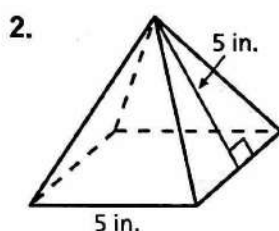
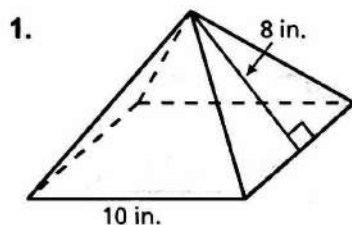


## Puzzle Time

### How Much Is A Skunk Worth?

Write the letter of each answer in the box containing the exercise number.

Find the surface area of the pyramid. The side lengths of the base are equal.



#### Answers

- O.  $75 \text{ in.}^2$
- E.  $207 \text{ in.}^2$
- C.  $123.6 \text{ in.}^2$
- N.  $163.5 \text{ in.}^2$
- E.  $260 \text{ in.}^2$
- T.  $129.6 \text{ in.}^2$
- S.  $85.75 \text{ in.}^2$
- N.  $259.2 \text{ in.}^2$

2	5	1		7	6	3	4	8
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# 8.4 Puzzle Time

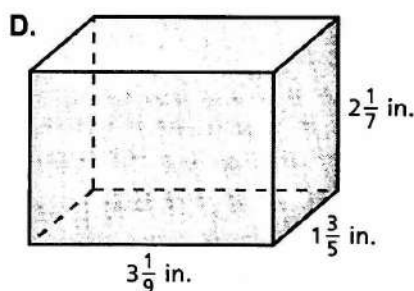
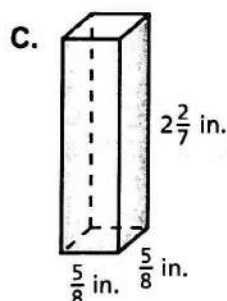
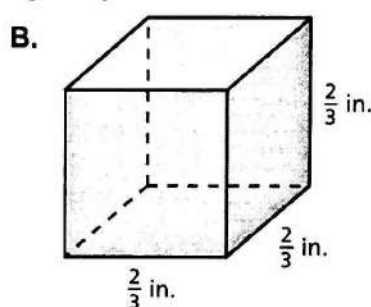
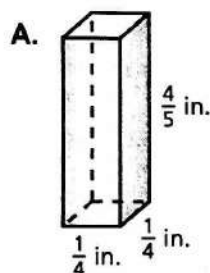
## What Did The Necktie Say To The Hat?

A	B	C	D	E	F
G	H				

Complete each exercise. Find the answer in the answer column. Write the word under the answer in the box containing the exercise letter.

3 in. WILL
5 in. AROUND
$\frac{1}{20}$ in. <sup>3</sup> YOU
$10\frac{2}{3}$ in. <sup>3</sup> I

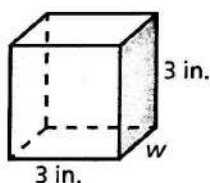
Find the volume of the rectangular prism.



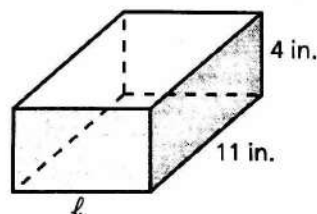
$\frac{8}{27}$ in. <sup>3</sup> GO
13 in. HANG
8 in. JUST
$\frac{25}{28}$ in. <sup>3</sup> AHEAD

Write and solve an equation to find the missing dimension of the rectangular prism.

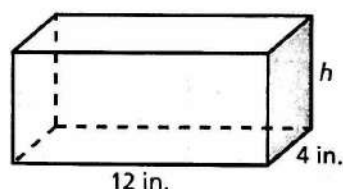
E.  $V = 27$  in.<sup>3</sup>



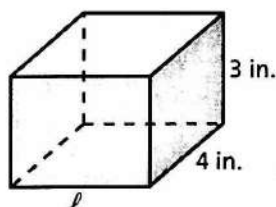
F.  $V = 352$  in.<sup>3</sup>



G.  $V = 624$  in.<sup>3</sup>



H.  $V = 60$  in.<sup>3</sup>





## Puzzle Time

## If A Seagull Flies Over The Sea, What Flies Over The Bay?

Write the letter of each answer in the box containing the exercise number.

**Determine whether the question is a statistical question.**

1. How many hours do sixth-graders spend watching television on the weekend?  
A. Yes B. No
2. How many states begin with the letter A?  
D. Yes E. No
3. How many members in the sixth-graders' households have cell phones?  
A. Yes B. No

**Display the following data in a dot plot. Then use the dot plot to answer the questions.**

24	23	24	25	23
24	31	22	26	24
27	25	32	24	31
22	25	24	25	23

- 4.** Identify the peak.
- K. 25                      L. 24                      M. none
- 5.** Identify the cluster.
- B. Around 24            C. Around 31            D. none
- 6.** Identify the gap.
- F. Between 22 and 27   G. Between 27 and 31   H. none

3		5	1	6	2	4
---	--	---	---	---	---	---

# 9.2 Puzzle Time

## What Is Really Easy To Get Into, But Really Hard To Get Out Of?

Write the letter of each answer in the box containing the exercise number.

Find the mean of the data.

1.

Number of Text Messages Per Day	
Jill	22
Dylan	15
Bill	18
Bella	20
Drew	10

2.

Number of Cats Owned	
Louise	
Ted	
Mark	
Alexis	

3.

Number of TVs in Home	
Spencer	□□□□□
Megan	□□□□
Tyler	□□□
Ann	□□
Beth	□□□□□
Ashley	□□□□
Mike	□□□□□

4.

Number of Visits to the Stadium	Matt	Brady	Olivia	Ellie	Riley	Noah	Sam
	○○○○	○○	○○○○○	○○○	○○	○	○○○○

5. 12, 15, 18, 22, 25, 28

6. 2.6, 2.9, 3.2, 4.2, 5.6

Find the outlier of the data.

7. 60, 55, 65, 8, 57, 62

8. 2, 2, 3, 3, 4, 32

9. 11, 13, 13, 15, 15, 76

10. 18, 17, 1, 15, 19, 23

### Answers

G. 4

O. 3.7

E. 76

I. 2

R. 20

B. 32

U. 17

L. 3

T. 8

B. 1

8	2	3		7	5	6	1	10	4	9
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## Puzzle Time

### What Should Always Go Up When The Rain Is Pouring Down?

Write the letter of each answer in the box containing the exercise number.

Find the mean, median, and mode(s) of the data.

1. 4, 6, 8, 10, 12, 4, 12
2. 13, 18, 15, 12, 15, 17
3. 94, 82, 95, 72, 90, 92, 95, 100
4. 43, 12, 35, 51, 18, 26, 32
5. 14, 35, 20, 30, 31, 14, 19, 6, 2
6. 50, 39, 35, 50, 44, 39, 53, 66

Find the mode of the data.

7.

Favorite Sport	
Soccer	Gymnastics
Baseball	Baseball
Swimming	Soccer
Football	Gymnastics
Gymnastics	Basketball
Golf	Lacrosse
Basketball	Golf
Hockey	Football

8.

Favorite Food	
Pizza	Pizza
Cheeseburger	Spaghetti
Apples	Cheeseburger
Spaghetti	Pizza
Hot dog	Spaghetti
Pizza	Apples
Cheeseburger	Hot dog

#### Answers

- U. 19, 19, 1  
 F. Soccer  
 T. Apples  
 R. 15, 15, 15  
 P. Spaghetti  
 L. Gymnastics  
 A. 31, 32, none  
 B. 8, 8, 4, and 12  
 W. Football  
 L. 47, 47, 39 and 50  
 M. 90, 93, 95  
 E. Pizza

5	3	1	2	8	7	6	4
---	---	---	---	---	---	---	---



## Puzzle Time

### How Is The Snail Housing Market?

Write the letter of each answer in the box containing the exercise number.

The table shows the number of minutes sixth-graders spend reading per night.

Minutes				
36	12	26	20	31
30	19	34	10	24

- Find the range of the data.
- Find the median of the data.
- Find the first quartile of the data.
- Find the third quartile of the data.
- Find the interquartile range of the data.
- Does this set of data contain any outlier(s)? If yes, what is the outlier?

The table shows the number of players on the different football teams in the surrounding area.

Players					
24	37	16	32	39	24
20	35	62	24	40	26

- Find the range of the data.
- Find the median of the data.
- Find the first quartile of the data.
- Find the third quartile of the data.
- Find the interquartile range of the data.
- Does this set of data contain any outlier(s)? If yes, what is the outlier?

#### Answers

S. 19

B. 62

I. 12

U. 38

L. 29

A. 25

H. 46

G. 31

S. No

I. 26

T. 24

G. 14

2		12	5	9		6	8	10	11	4	1	3	7
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## Puzzle Time

### How Do You Measure Poison Ivy?

Write the letter of each answer in the box containing the exercise number.

Use the tables to find the mean and the MAD.

1. Find the mean of the data.

Number of Strikes During a Bowling Game			
3	2	6	9
2	7	3	0

2. Find the mean absolute deviation of the data.

3. Find the mean of the data.

Scores on a Test (percent)				
63	70	95	88	84
59	76	92	63	90

4. Find the mean absolute deviation of the data.

5. Find the mean of the data.

Number of Library Patrons			
124	120	140	165
147	156	141	207

6. Find the mean absolute deviation of the data.

7. Find the mean of the data.

Prices of Skateboards (dollars)					
44	63	24	99	58	36

8. Find the mean absolute deviation of the data.

#### Answers

Y.  $19\frac{1}{3}$

H. 78

C.  $19\frac{1}{2}$

I. 4

S. 11.8

T. 54

E. 2.5

B. 150

5	8		1	7	6	3	2	4
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# 10.1 Puzzle Time

## How Do Chickens Grow Strong?

Circle the letter of each correct answer in the boxes below. The circled letters will spell out the answer to the riddle.

The stem-and-leaf plot shows the number of points the varsity football team scored in each game of the season.

- How many games did the team play?
- In how many games did the team score more than 20 points?
- In how many games did the team score fewer than 10 points?
- What is the mean of the scores?
- What is the range of the scores?
- What is the median of the scores?
- What is the mode of the scores?

Football Scores

Stem	Leaf
0	0 1 5
1	3 4 5 6 7
2	1 4 4 7 8
3	0 5

Key: 1 | 3 = 13 points

The stem-and-leaf plot shows the heights (in inches) of all the kids that live on your street.

- How many kids live on your street?
- How many kids are at least 50 inches tall?
- How many kids are less than 60 inches tall?
- What is the mean of the heights?
- What is the range of the heights?
- What is the median of the heights?
- What is the mode of the heights?

Heights

Stem	Leaf
3	5 7 9
4	1 3 7 9
5	1 2 4 4
6	0 2

Key: 5 | 2 = 52 inches

T	A	H	E	R	Y	S	E	M	G	L	G	S	E	A	R	C	H	I	S	T	E
13	47	35	11	16	27	25	15	52	49	21	24	7	48	14	17	3	62	54	18	51	6



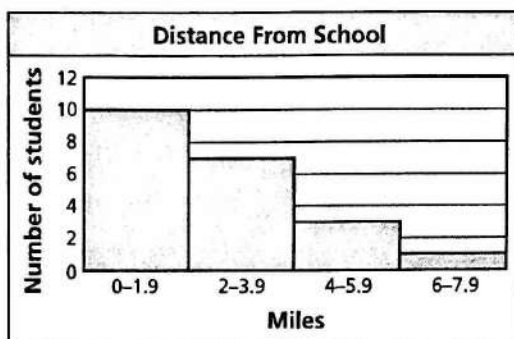
# 10.2 Puzzle Time

## What Runs With Me, Then Lies Under My Bed With Its Tongue Hanging Out?

Circle the letter of each correct answer in the boxes below. The circled letters will spell out the answer to the riddle.

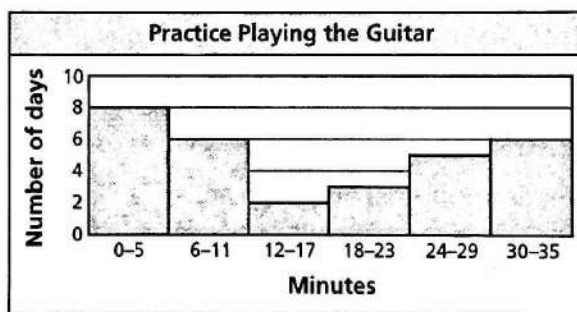
The histogram shows the distances from school that the students in a class live.

- How many students are in the class?
- How many students live less than 2 miles from school?
- How many students live at least 4 miles from school?
- How many students live at least 2 miles from school?



The histogram shows the number of minutes per day you practiced playing the guitar in a month.

- How many days did you practice guitar for at least 30 minutes?
- How many days did you practice guitar for at least 18 minutes?
- How many days did you practice guitar for 5 minutes or less?
- How many days did you practice guitar for no more than 17 minutes?
- How many days did you practice guitar for more than 5 minutes?



T	R	M	L	Y	O	S	N	G	E	R	A	T	D	K	B	E	P	W	R	F
30	18	8	2	10	7	22	11	25	6	15	21	12	3	14	19	4	20	9	16	5

# 10.3 Puzzle Time

## Have You Heard The Joke About The Jump Rope?

Write the letter of each answer in the box containing the exercise number.

Make a dot plot of the data. Describe the shape of the distribution.

1.

Ages of Concert Band Members															
14	13	12	16	15	13	14	11	13	15	16	14	17	15	14	12

H. Skewed left      I. Symmetric      J. Skewed Right

2.

Number of Study Halls Per Week																			
1	3	1	2	1	2	0	3	4	2	0	2	6	1	4	1	5	2	1	3

G. Skewed left      H. Symmetric      I. Skewed Right

3.

Number of Siblings															
5	5	5	6	1	4	2	4	2	3	4	3	4	3	6	7

R. Skewed left      S. Symmetric      T. Skewed Right

4.

Heights of Sixth Graders (inches)																	
61	59	60	63	59	61	62	57	61	60	58	60	58	60	60	59	61	61

T. Skewed left      U. Symmetric      V. Skewed Right

5.

Number of Blocks Students Walk to School																			
2	1	6	4	2	5	1	3	1	2	2	1	3	2	0	4	3	1	0	1

N. Skewed left      O. Symmetric      P. Skewed Right

6. Display the data in a histogram. Describe the shape of the distribution.

Ages	1-9	10-19	20-29	30-39	40-49	50-59	60-69
Frequency	1	2	2	4	5	6	2

K. Skewed left      L. Symmetric      M. Skewed Right

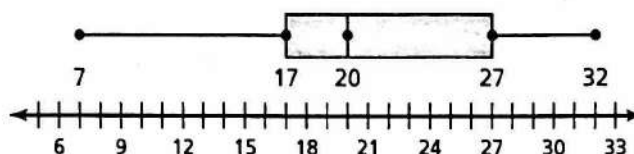
3	6	2	5		1	4
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# 10.4 Puzzle Time

## Why Couldn't The Egg Lend Money To The Troll?

Write the letter of each answer in the box containing the exercise number.

In Exercises 1–6, use the box-and-whisker plot.



1. What is the least value?
2. What is the greatest value?
3. What is the range of the data?
4. What is the value representing the first quartile?
5. What is the median?
6. What is the value representing the third quartile?

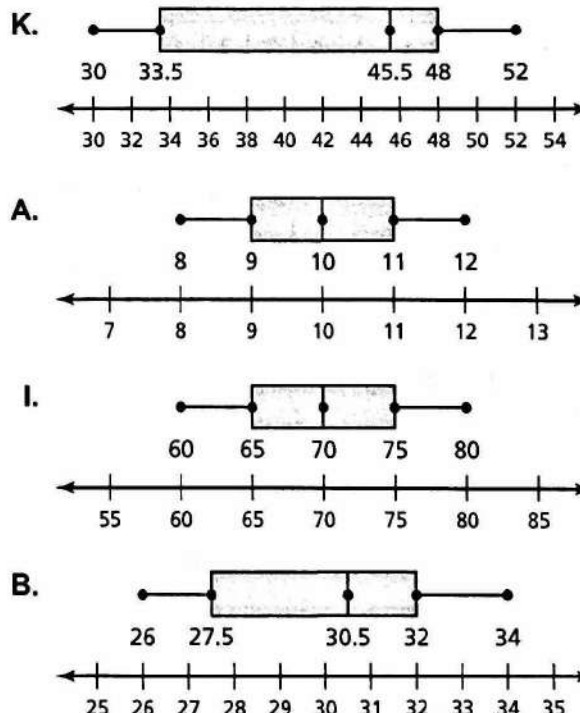
Make a box-and-whisker plot for the data.

7. Test scores in your class:  
70, 75, 70, 65, 80, 60, 65, 75
8. Hours spent on the Internet per week:  
8, 9, 10, 11, 9, 10, 12, 11
9. Lengths (in inches) of small dogs:  
26, 28, 30, 34, 27, 32, 32, 31
10. Temperatures (in degrees Fahrenheit):  
45, 48, 52, 30, 48, 31, 49, 48, 36, 31, 40, 46

### Answers for Exercises 1–6

- R. 25                      T. 7  
W. 27                      O. 17  
E. 32                      S. 20

### Answers for Exercises 7–10



7	1		6	8	5		9	3	4	10	2
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## Part 2: Answer Key

*Below you will find the answer to the silly question being asked at the beginning of each worksheet.*

### Chapter 4:

#### Lesson 4.1 Puzzle Time

- CHALK-O-LATE

#### Lesson 4.2 Puzzle Time

- DOG THAT SWALLOWED A WATCH AND ENDED UP WITH TICKS

#### Lesson 4.3 Puzzle Time

- THE COMPUTER THAT WASN'T ALLOWED TO DRIVE BECAUSE IT KEPT CRASHING

#### Lesson 4.4 Puzzle Time

- A TOADEM POLE
- 

### Chapter 5:

#### Lesson 5.1 Puzzle Time

- TWO OXEN THAT BUMPED INTO EACH OTHER AND IT WAS AN OXIDENT

#### Lesson 5.2 Puzzle Time

- BY MOVING

#### Lesson 5.3 Puzzle Time

- BEHIND THE PLATE

#### Lesson 5.4 Puzzle Time

- UNHOPPY

#### Lesson 5.5 Puzzle Time

- LEAD ME TO YOUR READERS

#### Lesson 5.6 Puzzle Time

- PROBLEMS FILLED THE PAGES

#### Lesson 5.7 Puzzle Time

- WITH TOMATO PASTE
- 

### Chapter 6:

#### Lesson 6.1 Puzzle Time

- SHOCK ABSORBERS

#### Lesson 6.2 Puzzle Time

- DUMBBELLS THAT WERE ALWAYS LATE BECAUSE THEY GOT HELD UP AT THE GYM

#### Lesson 6.3 Puzzle Time

- LUNCH IS ON ME

#### Lesson 6.4 Puzzle Time

- MATADOR WHO BECAME A BASEBALL PLAYER AND HE COULD ALWAYS BE FOUND IN THE BULL PEN

### Lesson 6.5 Puzzle Time

- A MOVIE ABOUT A ZEBRA
- 

## Chapter 8:

### Lesson 8.1 Puzzle Time

- SWIMMING TRUNKS

### Lesson 8.2 Puzzle Time

- A CLOCKMAKER

### Lesson 8.3 Puzzle Time

- ONE SCENT

### Lesson 8.4 Puzzle Time

- YOU GO AHEAD I WILL JUST HANG AROUND
- 

## Chapter 9:

### Lesson 9.1 Puzzle Time

- A BAGEL

### Lesson 9.2 Puzzle Time

- BIG TROUBLE

### Lesson 9.3 Puzzle Time

- UMBRELLA

### Lesson 9.4 Puzzle Time

- A BIT SLUGGISH

### Lesson 9.5 Puzzle Time

- BY ITCHES
- 

## Chapter 10:

### Lesson 10.1 Puzzle Time

- THEY EGGSERCISE

### Lesson 10.2 Puzzle Time

- MY SNEAKER

### Lesson 10.3 Puzzle Time

- SKIP IT

### Lesson 10.4 Puzzle Time

- IT WAS BROKE